

**ABSTRACT OF THE DISCLOSURE**

[1057] We present a technique for implementing obstruction-free atomic multi-target transactions that target special “transactionable” locations in shared memory. A programming interface for using operations based on these transactions can be structured in several ways, including as  $n$ -word compare-and-swap (NCAS) operations or as atomic sequences of single-word loads and stores (e.g., as transactional memory).